"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 18003-63
ACCESSION NR: AP3001294

2

express deep thanks to S. N. Zhurkov for the valuable suggestions he made during preparation of this work." Orig. art. has: 4 figures and 2 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe, AN SSSR, Leningrad (Physical and Technical Institute, Academy of Sciences, SSSR)

SUBMITTED: 13Feb63 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: ML, PH NO REF SOV: 012 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

ZHURKOV, S.N., REGEL', V.R.; SANFIROVA, T.P.

Relation between the time-temperature dependence of the strength of polymers and the nature of their thermal degradation. Vysokom. soed. 6 no.6:1092-1097 Je '64 (MIRA 18:2)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 00749-66 EWT(m)/EPF(c)/EWP(j)/T/ETC(m) WW/RM

ACCESSION NR: AP5020966 UR/0190/65/007/008/1339/1343

AUTHOR: Zhurkov, S. N.; Regel', V. R.; Sanfirova, T. P.

TITLE: Effect of active additives on the time-temperature dependence of polymer strength

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 8, 1965, 1339-1343

TOPIC TAGS: polymer, depolymerization, pole shift, thermal decomposition, radical reaction, stabilizer additive

ABSTRACT: The authors previously proposed that the pole shift effect in polymers is caused by secondary radical reactions which affect the degradation process rate. The effect of the addition of active additives to polymethylmethacrylate on the pole shift in $\lg\tau$ -1/T coordinates was studied. Radical reaction initiators (benzoyl peroxide) increased the pole shift, that is, shifted the pole to the right away from the ordinate axis. Radical reaction inhibitors (hydroquinone, diphenylmethacrylamide, 2,2'-methylene-bis-4-methyl-6-tert. butylphenol, 2-(2-hydroxy-5-methylphenylbenzocresol) decreased the effect, shifting the pole

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 00749-66

ACCESSION NR: AP5020966

9

to the left nearer its normal position on the ordinate axis. The pole shift also depended on concentration of the additive; the shift decreased when more than the optimum amount of stabilizer was added. It was indicated these results serve as additional argument in favor of kinetic concepts of the nature of polymer degradation, and of the intimate relationship between degradation and thermal decomposition processes. "Diphenylmethacrylamide stabilizer was kindly supplied by T. A. Sokolov, and the other stabilizers and antioxidant by Ye. N. Matveyev." Orig. art. has: 4 figures

44,55

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe (Physicotechnological Institute)

SUBMITTED: 04Sep64 ENCL: 00 SUB CODE: MT, GC

NR REF SOV: 007 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RAZUVAYEV, G.A.; MINSKER, K.S.; KRONMAN, A.G.; SANGALOV, Yu.A.

Stereospecific effect in the homogeneous free radical polymerization of vinyl chloride in aldehydes. Vysokom.soed. 5 no.11:1615-1619 N '63. (MIRA 17:1)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni Lobachevskogo.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 13705-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3003513 S/0020/63/151/001/0110/0113 66

AUTHORS: Razuvayev, G. A. (Corr. member, AN SSSR); Minsker, K. S.; Sangalov, Yu. A.; Grayevskiy, A. I.

TITLE: Initiating low-temperature polymerization of vinyl chloride with triethylaluminum by co-catalytic action of oxygen

SOURCE: AN SSSR. Doklady, v. 151, no. 1, 1963, 110-113

TOPIC TAGS: low-temperature polymerization, vinyl chloride, triethylaluminum, oxygen, diethoxyethylaluminum, syndiotactic macromolecule

ABSTRACT: The induction period of low-temperature (-30C) polymerization of vinyl chloride with triethylaluminum and oxygen depends on the oxidation of triethylaluminum. A study of its 3 oxidation stages indicated high polymerization in the 2nd stage (diethoxyethylaluminum) but no or very small polymerization in the 1st (diethylaluminum ethoxide) and 3rd (diethoxyaluminum peroxyethyl) stages. PVC yield depends on solvent, increasing with solvents in which it is soluble, e.g. in dichlorethane or in halobenzene yield is 5 times greater than in aliphatic or aromatic hydrocarbons, in which PVC is not too soluble. In oxygen-containing solvents PVC yield is lowered: the electron-donor agents complex with TEA,

Card 1/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 13705-63
ACCESSION NR: AP3003513

competing with O for the catalyst. The PVC obtained by TEA-O catalyzed low-temperature polymerization differs from normal atactic and from highly crystalline macromolecules, almost similar to the syndiotactic PVC obtained by free-radical polymerization at analagous temperature. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 25Dec62 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: CH NO REF SOV: 005 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

MINSKER, K.S.; SANGALOV, Yu.A.; GRAYEVSKIY, A.I.; RAZUVAYEV, G.A.

Low-temperature polymerization of vinyl chloride in the presence of the system organoaluminum compound - oxygen. Vysokom.soed. 6 no.2:269-273 F '64. (MIRA 17:2)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

ACCESSION NR: AP4019979 S/0020/64/154/006/1398/1401

AUTHORS: Razuvayev, G.A.(Corresponding Member); Mmsker, K.S.; Sangalov, Yu.A.

TITLE: Polymerization of some olefins and vinyl monomers in diethylbutene-1-yl-1-aluminum (DEBA) in the presence of titanium halides

SOURCE: AN SSSR. Doklady*, v.154, no.6, 1964, 1398-1401, insert facing p.1329

TOPIC TAGS: polymerization olefine monomer, vinyl monomer, diethylbutenealuminum, titanium halide, electrophilic property

ABSTRACT: The catlytic action of DEBA in a polymerization reaction of some monomers was studied. The catalytic system on a DEBA base combined with titanium chlorides possesses unusual properties which permit both the polar and nonpolar mnomers to be polymerized. Such behavior can be explained by a reduction of its electrophilic properties (as compared to triethylaluminum), as occurred in the use of $(C_2H_5)_2Al-OC_2H_5$ or $(C_2H_5)_3Al$ with additions of donor agents. Thus, properties

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ACCESSION NR: AP4019979

of DEBA include both the properties of its hydroxy and halide derivatives. Such a peculiarity of properties of the unsaturated aluminumorganic compound signifies that the catalytic systems, while being active in olefinic polymerization, are also capable of causing polymerization, are also capable of causing polymerization of polar monomers. Orig. art. has: 4 figures, 1 table

ASSOCIATION: none

SUBMITTED: 20Nov63 DATE ACQ: 23Mar64 ENCL: 00

SUB CODE: CH NR REF SOV: 011 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

ACCESSION NR: AT4020699 S/0000/63/000/000/0045/0047

AUTHOR: Minsker, K. S.; Kronman, A. G.; Sangalov, Yu. A.; Bort, D. N.; Razuvayev, G. A.

TITLE: Crystalline polyvinyl bromide

SOURCE: Karbotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Carbon-chain macromolecular compounds); sbornik statey. Moscow, Izd-vo AN SSSR, 1963, 45-47

TOPIC TAGS: polymerization, stereospecific polymerization, crystalline polymer, block polymerization, polyvinyl chloride, polyvinyl bromide, butyraldehyde

ABSTRACT: Crystalline polyvinyl bromide was prepared by homogeneous free-radical stereospecific polymerization at room temperature in a butyraldehyde medium. After 5 hours, the yield of polyvinyl bromide was 5-6% with a 0.02% active oxygen content in the aldehyde. The resulting polymer was a white powder with an absolute viscosity of 0.912 cp at 20C in dichlorethane. The absolute viscosity of highly crystalline polyvinyl chloride obtained under the same conditions was 0.939 cp. X-ray patterns of annealed unoriented polyvinyl bromide films obtained by block polymerization and by the polymerization of the monomer in a butyraldehyde solution are given. The maximum degree of crystallinity of polyvinyl bromide was obtained at a molar ratio of monomer to aldehyde = 1 : 1. Addition of water and alcohols to

Card 1/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

ACCESSION NR: AT4020699

the homogeneous stereospecific system produced a strongly amorphous polymer structure. By polymerizing the monomer in ether solutions, a sufficiently high degree of crystallinity could be retained. Orig. art. has: 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I. Lobachevskogo (Scientific Research Institute of Chemistry, Gor'kiy State University)

SUBMITTED: 09Apr62 DATE ACQ: 20Mar64 ENCL: 00

SUB CODE: OC NO REF SOV: 005 OTHER: 003

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGALOV, Yu.A.; MINSKER, K.S.; RAZUVAYEV, G.A.

Catalytic activity of the system aluminum - organic compound - peroxide. Vysokom. soed. 6 no.7:1323-1326 Jl '64(MIRA 18:2)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 19590-65 EWT(m)/EPF(c)/EWP(j)/T Pr-4 ASD(m)-3/AFETR RM

ACCESSION NR: AP4045102 S/0020/64/158/001/0170/0172

AUTHOR: Razuvanyev, G. A.(Corresponding member AN SSSR); Minsker, K. S.; Sangalov, Yu. A.

TITLE: Initiation of vinyl chloride polymerization by the reactions of triethylaluminum with halogen-containing organic compounds

SOURCE: AN SSSR. Doklady*, v. 158, no. 1, 1964, 170-172

TOPIC TAGS: vinyl chloride, polymerization, polymerization initiation, triethylaluminum catalyst system, titanium trichloride catalyst system, chloroorganic catalyst system, polyvinyl chloride, catalyst

ABSTRACT: The initiation of the vinyl chloride polymerization reaction by the interaction of triethylaluminum (TEA) with certain haloorganic compounds was studied. Vinyl chloride did not polymerize in the presence of TEA-$TiCl_3$ and non-polar hydrocarbons. Polymerization with yields of 4-5% to 80-85% was obtained in TEA-$TiCl_3$-RCl systems (RCl= alkyl or aryl chlorides and di- and polychloro derivatives of saturated and unsaturated hydrocarbons). The compounds

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containing chemically inert chlorine atoms did not initiate polymerization; the activity of the chlorine increased in the following series:
$C_2H_5Cl < iso\text{-}C_3H_7Cl < iso\text{-}C_4H_9Cl < iso\text{-}C_4H_9Cl < CH_2Cl\text{-}CH_2Cl < CH_2Cl_2 < CHCl_3 < CCl_4$
The very low polymerization in the presence of compounds such as t-butyl chloride, benzylchloride and allyl chloride was believed due to their rapid reaction with TEA. It was concluded that the act of polymerization initiation is associated with the reaction between the TEA and RCl, and $TiCl_3$ accelerated this reaction and monomer polymerization. The catalyst system comprising aluminumalkyl and titanium halide did not cause vinyl chloride polymerization. Changing the component ratio in the catalyst system or changing the reactivity of the aluminumalkyl affected the polymerization. The TEA-RCl-$TiCl_3$ catalyst system was effective in the -50 to +50 C temperature range, with the yield lowered at the lower temperature. The PVC produced by this catalyst system was of relatively low molecular weight, had uniform globules of ~0.1 micron diameter, and other properties corresponding to those of PVC produced by free radical polymerization. Orig. art. has: 3 figures and 1 table

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 19590-65

ACCESSION NR: AP4045102

ASSOCIATION: None

SUBMITTED: 15Apr64 ENCL: 00

SUB CODE: GC, OC NO REF SOV: 000 OTHER: 002

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 18221-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 ASD(m)-3/AFETR/SSD/AFWL RM

ACCESSION NR: AP4049140 S/0020/64/159/001/0158/0159

AUTHORS: Razuvayev, G. A. (Corresponding member AN SSSR); Minsker, K. S.; Sangalov, Yu. A.

TITLE: Low-temperature polymerization of vinylchloride, initiated by the reaction of aluminumalkyls with halogens

SOURCE: AN SSSR. Doklady*, v. 159, no. 1, 1964, 158-159

TOPIC TAGS: polymerization, low temperature research, vinylchloride, polyvinylchloride, aluminumalkyl compound

ABSTRACT: It was the purpose of this experiment to polymerize vinylchloride at low temperatures (initiating this process with $(C_2H_5)_3Al{-}Cl_2$). Experimental results showed that the polymerization of vinylchloride was related to the reaction of chloride or bromide with aluminumalkyl. It was observed that upon constant addition of chlorine gas (at the rate of 25-30 ml/min) to the reaction solution (1.5 moles of triethylaluminum in 100 g of vinylchloride) polyvinylchloride was obtained in a wide range of temperatures (-15 to -70C), as shown in Fig. 1 on the Enclosure. A vital factor in the polymerization process was the rate of introduction of the chlorine into the reaction zone. Increasing the concentration of vinylchloride from 1.6 to

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L 18221-65
ACCESSION NR: AP4049140

3.2 moles (for every 0.024 moles $(C_2H_5)_3Al$) increased the convereion by 2.5 times in the same polymerization time. Polymerization was initiated only when the chlorine reacted with the aluminum-organic-compound containing at least one alkyl group. The nature of the alkyl group in the aluminumalkyl compound determined this compound's activity in the polymerization. The largest yields of polyvinylchloride were obtained with $(iso\text{-}C_4H_9)_3Al$ and $(C_2H_5)_3Al$. When the chlorine was replaced by bromine in the presence of $(C_2H_5)_3Al$, there was a conversion drop from 15 to 25%. Iodine gave no reaction. It was shown that by using the reaction of halogens with aluminumalkyl compounds it was possible to polymerize other vinyl monomers such as vinylacetate at low temperatures. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: none

SUBMITTED: 08Jun64 ENCL: 01

SUB CODE: OC , TD NO REF SOV: 002 OTHER: 002

Card 2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 18221-65
ACCESSION NR: AP4049140

ENCLOSURE: 01

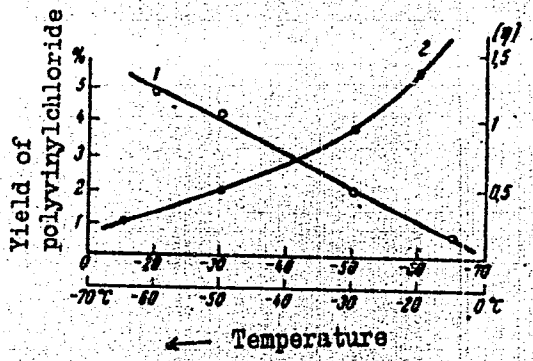

Fig. 1. Influence of the temperature of polymerization on yield (1) and characteristic viscosity of polyvinylchloride (2) during the polymerization of vinylchloride in system: $(C_2H_5)_3Al$--Cl_2; $(C_2H_5)_3Al$ = 0.024 moles, vinylchloride = 1.6 moles, 2.5 hours).

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RAZUVAYEV, G.A.; SANGALOV, Yu.A.; MINSKER, K.S.; KOGAN, L.M.; RABOVSKAYA, N.S.

Initiation of vinyl chloride polymerization by reactions between lower unsaturated chlorocarbons and triethylaluminum. Dokl. AN SSSR 160 no.1:143-144 Ja '65. (MIRA 18:2)

1. Moskovskiy gosudarstvennyy universitet. 2. Chlen-korrespondent AN SSSR (for Razuvayev).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RAZUVAYEV, G.A.; SANGALOV, Yu.A.; MINSKER, K.S.; KOVALEVA, N.V.

Polymerization of vinyl chloride in the presence of the system alkylaluminum - alkyl halide. Vysokom. soed. 7 no.3:539-545 Mr '65. (MIRA 18:7)

1. Institut khlororganicheskikh produktov i akrilatov.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RAZUVAYEV, G.A.; MUNSKER, K.S.; LATYAYEVA, V.N.; SANGALOV, Yu.A.

Polymerization of vinyl chloride initiated by the reaction of carbon tetrachloride with ti' nium organometallic compounds. Dokl. AN SSSR 163 no.4:906-908 Ag '65. (MIRA 18:8)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom Gosudarstvennom universitete im. N.I.Lobachevskogo. 2. Chlen-korrespondent AN SSSR (for Razuvayev).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RAZUVAYEV, G.A.; GRAYEVSKIY, A.I.; MINSKER, K.S.; SANGALOV, Yu.A.; MALYSHEVA, K.M.

Some regularities in the polymerization of vinyl chloride in the presence of Ziegler-type catalysts. Vysokom. soed. 7 no.8:1364-1367 Ag '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy institut khlororganicheskikh produktov i akrilatov.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 39262-66

ACC NR: AP6020034 (A) SOURCE CODE: UR/0066/66/000/002/0032/0036

AUTHOR: Piskarev, A. I. (Candidate of technical sciences); Luk'yanitsa, L. G.; Ushkalova, L. V.; Dudarev, G. V.; Ogurechnikova, N. V.; Fominova, V. P.; Sangaylene, M. Yu.

ORG: [Piskarev, Luk'yanitsa, Ushkalova, Ogurechnikova, Dudarev] All-Union Scientific-Research Institute of the Refrigeration Industry (Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti); [Fominova, Sangaylene] Klaypeda Branch, Central Design and Technological Bureau (Klaypedskiy filial Tsentral'nogo proyektno-konstruktorskogo i tekhnologicheskogo byuro)

TITLE: Investingations on the storage of North Sea herring in refrigerated sea water. I. Technological investigations

SOURCE: Kholodil'naya tekhnika, no. 2, 1966, 32-36

TOPIC TAGS: food, refrigeration, food preservation, fishing ship, sea water

ABSTRACT: The purpose of these investigations was to elicit the technological advantages of storing fish in refrigerated sea water in comparison with storage in ice and the effect of additions to the water of high-polymer compounds on the physicochemical indexes and quality of the fish. During the cruise of an experimental fishing boat two experiments were set up:

Card 1/2 UDC: 637.56.004.4:551.463/.464

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 3894[illegible]-66

ACC NR: AP6020034

the first was on the storage of herring in refrigerated sea water and in ice and the second on the storage of herring in refrigerated sea water with the addition of carboxymethyl cellulose (CMC), which counters swelling and extraction of nitrogenous substances, in a quantity of 0.6% wt. Large herring measuring 23—25 cm were used in the first experiment and average-sized (18—20 cm) for the second experiment. Two hours after the start of cooling the sea water the temperature of the herring dropped to -1C and was later held during the entire experiment at the level from -1.2 to -1.5C, the temperature of the water during the entire experiment being maintained at 0.1—0.2C above the cryoscopic point of the herring. The investigation revealed that the main defect of herring when stored in refrigerated sea water was oxidation of the fat. As a result of this the large herring of the fall catch can be stored in a good condition for no more than 3 days. If the herring are stored for a longer time it is necessary to introduce additatives inhibiting the oxidative rancidity of the fat. To prevent the formation of cracks the herring should be stored at a temperature close to the cryoscopic point but not below it since freezing impairs the structure of the muscle tissue. The addition to sea water of CMC in a small concentration (1.6%) does not promote a decrease of swelling. Further investigations of the use of larger concentrations of CMC are needed. It is also pointed out that when herring is stored in sea water for 3 days it is not necessary to change the water, which appreciably simplifies storage. Orig. art. has: 1 table and 3 figures.

SUB CODE: 06/ SUBM DATE: 00/ ORIG REF: 003/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGAYLO, A.K., DEN'GINA, N.D., GORBASHEVA, M.P.

Combined effect of analgesics with aminazine [with summary in English]
Farm. i toks. 21, no.3:10-12 My-Je '58 (MIRA 11:7)

1. Kafedra farmakologii (zav. - prof. A.K. Sangaylo) Sverdlovskogo meditsinskogo instituta.
(CHLORPROMAZINE, effects,
on pain threshold, with analgesics (Rus))
(ANALGESICS, effects,
on pain threshold, with chlorpromazine (Rus))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGAYLO, A.K., prof.; PODSHIVALOVA, G.A.

Checking the efficacy of the verbal prophylactic method of labor preparation [with summary in English]. Akush. i gin. 34 no.3:3-7 My-Je '58. (MIRA 11:6)

1. Iz kafedry farmakologii Sverdlovskogo meditsinskogo instituta i Sverdlovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i mladenchestva.
(LABOR
painless, psychoprophylactic method (Rus))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGAYLO, A.K.

Some current problems in the clinical pharmacology of analgesics. Farm. i toks. 26 no.2:138-144 Mr-Ap '63. (MIRA 17:8)

1. Kafedra farmakologii (zav. - prof. A.K. Sangaylo) Sverdlovskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGAYLO, A.K., prof.

Quality of medicinal prescriptions and the tasks of pharmaceutical institutions. Zdrav. Ros. Feder. 4 no.5:37-40 My '60. (MIRA 13:11)

1. Zaveduyushchiy kafedroy farmakologii Vserdlovskogo meditsinskogo instituta.

(PRESCRIPTION WRITING) (DRUGSTORES)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGAILO, A. K.

"Physical Basis of the Study of Analgesics"

Second International Pharmacological Congress Prague, Czechoslovakia
20-23 Aug. '63

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RAZUVAYEV, G.A.; MINSKER, K.S.; KRONMAN, A.G.; SANGALOV, Yu.A.; BORT, D.N.

Mechanism of homogeneous radical stereospecific polymerization of vinyl chloride in aldehydes. Dokl. AN SSSR 143 no.5:1116-1118 Ap '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I.Lobachevskogo. 2. Chlen-korrespondent AN SSSR (for Razuvayev).
(Vinyl compound polymers)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RUMANIA

TELEAGA, R., Lecturer (Lector) and SANGHELI, A. University Assistant, Timisoara [affiliation not given]

"The Presence of Anguilla anguilla in the Waters of the Cerna."

Bucharest, Natura. Seria Biologie, Vol 15, No 2, Mar-Apr 1963, pp 85-87.

Abstract [Authors' English summary modified]: Describes the various places in Rumania where eels can be found, and reports the finding of this species in the Cerna, at Baile Herculane.

Includes 2 illustrations, 1 map and 16 references, of which 1 Russian, 4 Western and 11 Rumanian.

1/1

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

TELEAGA, R., lector (Timisoara); SANGHELI, A., asist. univ. (Timisoara)

Presence of eel in the waters of the Cerna River. Natura Biologie 15 no.2:85-87 Mr-Ap '63.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGIN, V. ".

314 Automatizatsiya Konveyernykh Uniy V Ugol'nykh Shakhtakh. M., Ugetekhizdat, 1954, 13? S. 6 Ill.; 1 6. Skhem. 22 SM. 3.000 Ekz. 4r. 10k-(54-54763 P
622.333:622.647+622.647

SO: Knizhnaya, Letopis, Vol. 1, 1955

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGINOV, D.M.

Medicolegal expertise on injuries inflicted with some cutting instruments. Sud.-med. ekspert. 7 no.3:22-24 Jl-S '64.
(MIRA 17:10)

1. Kafedra sudebnoy meditsiny (zav. - prof. K.I.Khizhnyakova) TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva i Byuro glavnoy sudebnomeditsinskoy ekspertizy (nachal'nik - dotsent A.G. Glushchenko) Ministerstva zdravookhraneniya Tadzhikskoy SSR, Dushanbe.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGINOV, K.

Dissertation: "Peculiarities in the Development of the Agricultural Economy in the Mountain Regions of Tadzhikstan, on the Example of the Varzobskiy Rayon." Cand Geog Sci, Inst of Geography, Acad Sci, USSR, Moscow, 1953. Referativnyy Zhurnal--Geologiya, Geografiya, Moscow, Jul 54.

SO: SUM No. 356, 25 Jan 1955

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGINOV, Kh.S., Cand Med Sci—(diss) "Comparative ~~characteristic~~ description of secretory and respiratory ~~and~~ components of a conditioned reaction in various types of internal inhibition." Mos, 1958. 17 pp (First Mos Order of Lenin Med Inst im I.M.Sechenov), (KL,45-58, 153)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGINOV, Kh.S.

Effect of mineral water from Shoambara spring on the secretory activity of the stomach. Zdrav.Tadzh. 9 no.3:28-29 My-Je '62. (MIRA 15:8)

1. Iz kafedry normal'noy fiziologii (zav. - dotsent O.G.Lorents) Tadzhikskogo meditsinskogo instituta imeni Abuali ibni Sino.
(STOMACH--SECRETIONS) (TAJIKISTAN--MINERAL WATERS)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGINOV, N.

Year's plan fulfilled by December 15. Prom.koop. no.7:31 Jl '57.
(MLRA 10:8)

1.Zamestitel' predsedatelya pravleniya Tadzhikpromsoveta.
(Tajikistan--Artel)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANGRET, M.

CZECHOSLOVAKIA

SANGRET, M., Engineer

Presov

Prague, Veterinarstvi, No 3, 1963, pp 135-

"Two Cases of Cattle Poisoning with Sorghum."

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

CA SANIELEVICI, A

34

Radioactivity in the region Tusnad-Băi Al. Saniélevici and E. Friedländer (Univ. Bucharest, Rumania). *Bul. Rep. Populare Române, Bul. Ştiinţ.* A, 1, 37–8 (1948). The activity of a few mineral springs in Rumania was found to be between 1.8 and 3.8 millimicrocuries Rn/l. In noxious gases in this region, 420 millimicrocuries per cu.m. was observed. G. Anfleger

1957

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, A.

SCIENCE

Periodicals: STUDII SI CERCETARI DE FIZICA. Vol. 6, no. 2, Apr./June 1955

SANIELEVICI, A. Semiautomatic installations for extraction and purification of radon. p. 369.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, ALEXANDRE S.

Structura nucleului atomic si tranzitiile radioactive, de Alexandru Sanielevici si Dragos Bogdan.

Bucuresti, Rumania, Editura Academiei Republicii Populare Romine, 1958. 471 p.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 8, August, 1959

Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

RUMANIA/Solid State Physics - Solid State Theory. Crystallography. E

Abs Jour : Ref Zhur Fizika, No 9, 1959, 20218

Author : Sanielevici, Al; Voljin, V., Corbasca, M.

Inst :

Title : X-Ray Tube with Deceleration of the β Radiation of Sr^{90} (Y^{90}).

Orig Pub : An. Univ. "C.I. Parhon" Ser. stiint. natur., 1958, No 19, 39-42

Abstract : To take radiographs of parts of light materials, an x-ray tube with deceleration of the radiation was constructed, in which the electron beam is emitted by a source Sr^{90} (Y^{90}), and the anti-cathode os a lead plate. The construction of the source of rays was made with account of the necessity for facilitating and insuring safety of its use without reducing the intensity of the beam. This construction eliminates the diffuse and backward-scattered radiations, which may fog the film, and a suitable

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

FLORU, L.; SANIELEVICI, H.; STOICESCU, C.; COMANEANU, M.

Contributions to the reduction of nitrobenzene to p-aminophenol.
Rev chimie Min petr 12 no.11:649-651 N '61.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, H.; SPILIADIS, A.; TEODORESCU, E.

A new method in alkaline melting for the preparation of 1,5-dihydroxynaphthalene. Rev chimie Min per 13 no.2:88-90 F '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, H.; TEODORESCU, L.; PASCALIDE, R.

Contributions to the preparation of L2A direct resistant ruby dyestuff. Rev chimie Min petr 13 no.4:202-204 Ap '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, H.; BRODMAN, F.; TEODORESCU, L.; PAUL, V.; PASCALIDE, R.; IACOB, B.; STULEANU, C.

Organic pigments for plastic materials. Pt 2. Rev chimie Min petr 13 no.11:668-674 N '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, H.; BRODMAN, F.; IACOB, B.; TEODORESCU, L.; PAUL, V.; PASCALIDE, R.; STULEANU, C.

Organic pigments for plastic materials. Pt. 1. Rev chimie Min petr 13 no.10:577-583 O '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, H.; SPILIADIS, A.; BADIC, E.; CALIN, C.; ROSENBERG, S.

Dyestuffs for synthetic fibers. Pt.1. Rev chimie Min petr 13 no.7:411-420 Jl '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

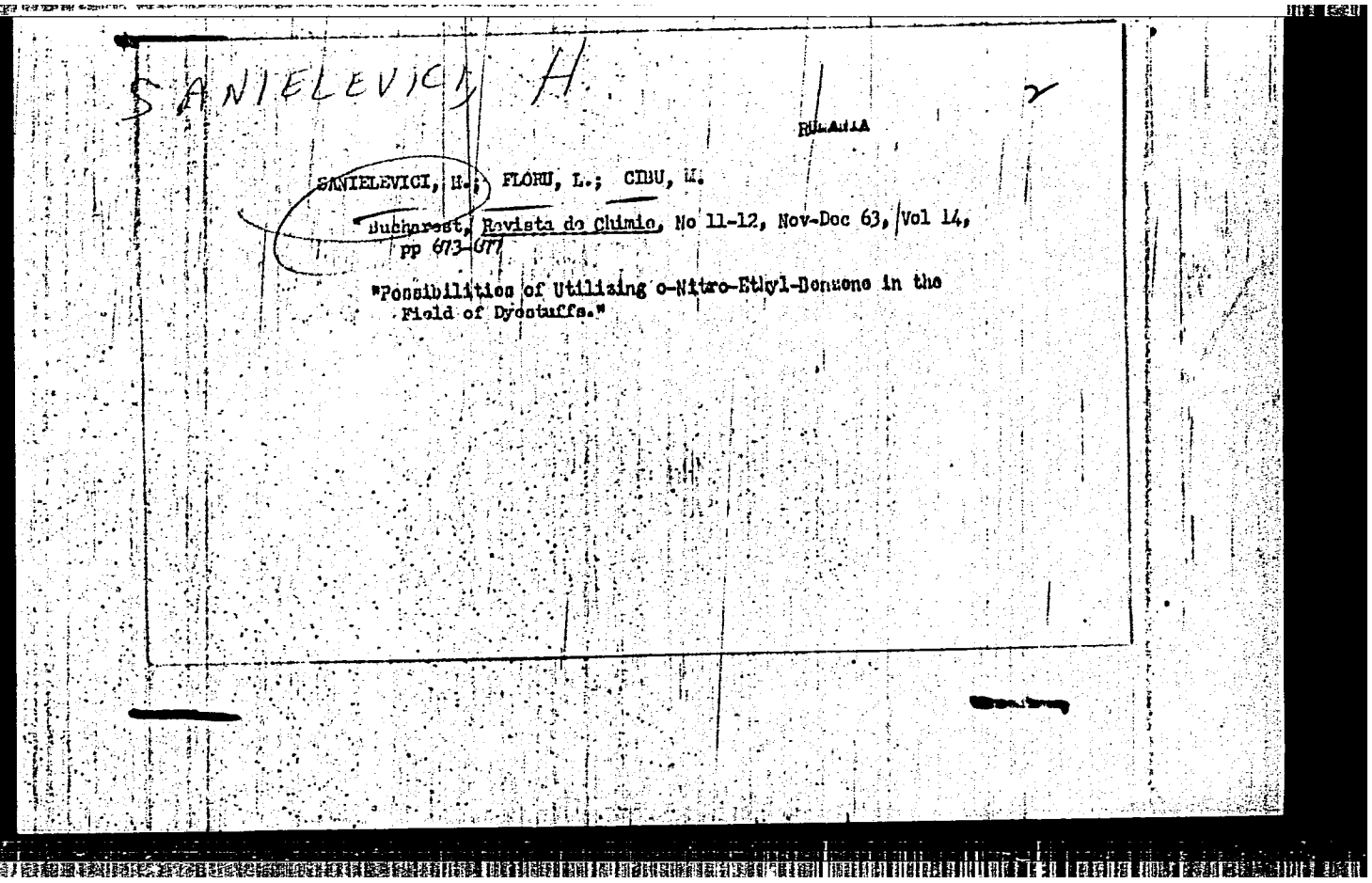
SANIELEVICI, H.; FLORU, L.; CIBU, M.

Contributions to the obtention of the benzidine-diglycolic acid. Rev chimie Min petr 14 no.1:28-32 Ja '63.

1. Institutul politehnic, Bucuresti.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6



SANIELEVICI H.

RUMANIA

SANIELEVICI, H.; FLORU, L.; CIBU, M.

Bucharest, Revista de Chimie, No 11-12, Nov-Dec 63, Vol 14, pp 673-677

"Possibilities of Utilizing o-Nitro-Ethyl-Benzene in the Field of Dyestuffs."

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, H.; SPILIADIS, A.; HILSENRATH, M.; BAZAVAN, I.; FAIBIS, R.

Contributions to the synthesis of the dyestuff Direct Copper Resistant Blue GL, similar to Benzoechtkupferblau GL. Rev chimie Min petr 12 no.7:392-398 Jl '61.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

L 31863-66 EWP(j) RM

ACC NR: AP6021277 SOURCE CODE: RU/0003/65/016/001/0023/0027

AUTHOR: Sanielevici, H.--Saniyelevich, Kh.; Teodorescu, Lydia--Teodoresku, L.

ORG: none

TITLE: Substantive azo dyes derived from urea

SOURCE: Revista de chimie, v. 16, no. 1, 1965, 23-27

TOPIC TAGS: urea, organic azo compound, dye chemical

ABSTRACT: A summary describing the structure and preparation of the principal azo dyes derived from urea. Dyes covered include the derivatives of carbonyl I acid, derivatives of diaminophenylurea, pyrazolone, metallizable and developer ureic azo dyes, and symmetric ureic azo dyes. Orig. art. has: 5 formulas and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 019
SOV REF: 002

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, S.

Sanielevici, S. Remarque sur les podaires négatives d'une courbe gauche. Acad. Repub. Pop. Romîne. Bul. Sti. A. 1, 369–374 (1949). (Romanian, Russian and French)

Source: Mathematical Reviews, Vol 12, No. 5.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

Sanielevici, S. On the problem of Hurwitz. Acad. Repub. Pop. Romîne. Bul. Şti. A. 1, 543–550 (1949). (Romanian. Russian and French summaries)

This paper is concerned with the Hurwitz criterion for the solution of the question that an algebraic equation $f(x)=0$ with real coefficients have only roots with negative real parts. The problem is solved by the formation of a new equation with roots $\frac{1}{2}(x_i+x_k)$, where x_i, x_k are roots of $f(x)=0$. The new equation has only roots with negative real parts if its coefficients are positive. The solution to the Hurwitz problem can also be found by the substitution $x=\xi+i\eta$, from which $f(\xi+i\eta)=P(\xi,\eta)+iQ(\xi,\eta)$ is obtained, and the elimination of η between the equations $P(\xi,\eta)=0$ and $Q(\xi,\eta)=0$. Thus a connection is established between the proposed method and the Hurwitz criterion.

E. Frank (Chicago, Ill.)

Source: Mathematical Reviews, Vol. 12 No. 5.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

Sanielevici, S. Rotations in spaces of n dimensions. Acad. Repub. Pop. Romîne Bul. Sti. A. 1 (61–66 (1949). (Romanian. Russian and French summaries)

Algebraically, the author's result on rotations in n-dimensional space is merely to the effect that in order for a skew-symmetric matrix to have $n-2$ zero characteristic roots it must be of rank 2. *D. C. Lewis* (Baltimore, Md.).

Source: Mathematical Reviews, Vol 12 No. 5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, S.

SANIELEVICI, S.: Remark on the Mnemonic Rule of Napier

Sanielevici, S. Remark on the "Regula mnemonica" of Napier. Acad Repub Pop Române Bul Ști Ser Mat Fiz Chim 2 541 544 (1950). (Romanian Russian and French summaries)

L'auteur montre que la "règle mnémonique" de Neper découle d'une manière naturelle de la correspondance établie par Lobatchevsky entre un triangle sphérique rectangle et un triangle rectiligne rectangle du plan "hyperbolique".

Author's summary.

Source: Mathematical Reviews, Vol 13 No.5

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

Sanielevici, S.

Sanielevici, S. Sur le „libre arbitre" dans les problèmes de dynamique. Acad. Repub. Pop. Române. Fil. Iaşi. Stud. Cerc. Şti. 2, 1–5 (1951). (Romanian. Russian and French summaries)

L'équation differentielle $d^2x/dt^2=6x^{\frac{1}{3}}$ du mouvement d'un point matériel admet les intégrales $x=(t-a)^3$ ou $x=-(t-a)^3$, s'annulant simultanément avec leurs dérivées pour $t=a$. L'on interprète quelquefois ce fait comme une preuve de „libre arbitre" du point matériel. Contre cette fausse interprétation l'auteur invoque la distinction à faire entre les deux problèmes d'analyse, suivants: celui de déterminer une intégrale par sa valeur initiale et celle de sa dérivée, et celui de choisir parmi les intégrales celles qui s'annulent en même temps que leurs dérivées. De telles distinctions sont à faire aussi, par exemple, dans divers autres cas classiques, tels le mouvement du pendule mathématique à fil rigide ou le mouvement d'un point pesant sur une courbe d'équation $9y^2=4x^3$. *A. Froda* (Zbl 45, 42).

1-F/W

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI, S.

A generalization of Wilson's theorem. p. 737.

COMUNICARILE. Bucuresti, Rumania, Vol. 8, no. 8, Aug. 1958.

Monthly List of European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959.

Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

CONSTANTINESCU, C.; PETRESCU-COMAN, V.; MARES, Viorica; SANIELEVICI, Sonia; RUSNA,C.

Interstitial myocarditis of the Fiedler type in sucklings and infants. Rumanian med. rev. 7 no.4:68-72 O-D'63.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIELEVICI-MARINOV, S.

RUMANIA/Morphology of Man and Animals. Lymphatic and R.E. Systems. S-3

Abs Jour: Referat. Zh.-Biol., No 1, 10 January, 1958, 2880.

Author : Petrescu-Coman V., Lescovar-Marinescu E., Sanielevici-Marinov S.

Inst :

Title : Certain Aspects of the Reticuloendothelial System in Children.

Orig Pub: Pediatria, 1956, 5, No 3, 222-227.

Abstract: No abstract.

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

CONSTANTINESCU, S.; TEODORESCU, B.; SANIELEVICI-MARINOV, S.; CUNESCU, V.; IACOB, A.; SCHMITZER, G.; VULCANESCU, M.; MARINOV, M.; VASILESCU, C.; LICHTENBERG, R.; BARCAN, F.; BANESCU, E.; BERNSTEIN, D.

Mass clinical and radiological detection (by radiophotography) of carditis in school-age children. Probl. reumat., Bucur. no.5:79-82 1958.
(RHEUMATIC HEART DISEASE, prevention & control
in school-aged child. in Rumania, clin. & radiol. diag.)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

CONSTANTINESCU, C., prof.; RAZVAN, B., conf.; SANIELEVICI-MARINOV, Sonia, dr.; OPRISESCU-STRAUSS, Ioana, dr.; SCHIOPU, Filofteia, chim.

Mucoviscidosis--respiratory form. Pediatria (Bucur) 14 no.1: 7-11 Ja-F'65.

1. Lucrare efectuata in Spitalul clinic de copii al Raionului "30 Decembrie", si Clinica a II-a de pediatrie (sef de clinica: prof. C. Constantinescu).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

S/058/62/000/008/024/134
A061/A101

AUTHORS: Ciok, P., Danysz, M., Saniewska, T., Zieliński, P.

TITLE: On the azimuthal angular distribution of particles in high-energy interactions

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 58, abstract 8B414 (Rept. Inst. badań jądrow. PAN, 1961, no. 253/VI, 6 pp., illust., English; summaries in Polish and Russian)

TEXT: The azimuthal angular distribution of slow secondary particles was analyzed for 37 nuclear high-energy interactions in an emulsion (energy of primary singly charged particle $> 10^{10}$ ev). The angular distribution observed is in keeping with the assumption of azimuthal anisotropy.

[Abstracter's note: Complete translation]

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

GUBANSKI, Marian; SANIEWSKI, Marian

Polysaccharides from Acer platanoides L. and Acer pseudoplathanus L. leaves infected with Rhytisma acerinum Pers. as a TMV inhibitors. Acta microbiol. Pol 13 no.3:227-232 '64.

1. From the Department of Plant Physiology, the University, Lodz.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIK, A. Ya.

118-58-3-3/21

AUTHORS: Murzin, G.A.; Latskiy, V.I.; Zimin, V.A.; Kizler, E.A.; and Sanik, A.Ya., Engineers

TITLE: Machine Tools for the Manufacturing of Mining Supports (Stanki dlya izgotovleniya elementov krepi)

PERIODICAL: Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, # 3, pp 10-13 (USSR)

ABSTRACT: The Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti-unipromed' (Ural Scientific Research and Designing Institute of the Copper Industry) has worked out 2 new types of mining support manufacturing machine tools, the "KZS-1U" and the "KZS-2U". The KZS-1U is a two spindle milling machine capable of producing 120 mining supports per hour, with lengths from 2,300 to 3,000 mm, and diameters from 170 to 250 mm. Two electric motors of the A52-4 type are used to operate the machine; one electric motor of the AOL-22-4 type is used for the conveyor mechanism. The wattage of the electric motors ranges from 7 to 0.4 kw. The dimensions of the machine are 4,180x2,885x1,435 mm, and its weight is 2,622 kg. The test model manufactured by the Kyshtymskiy mekhanicheskiy zavod (Kyshtym Mechanical

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Plant) has shown high working qualities.

The KZS-2U, used to cut vertical props, is a two spindle milling machine. Material handling is automatic, with an output of 30 props per hour. The length of the manufactured props may range from 1,500 to 3,900 mm, and their diameters from 180 to 220 mm. The machine is operated by two 4.5 kw electric motors of the AOL-51-4 type. Two 0.4 kw electric motors of the AOL-22-4 type are used, one each for the moving of carriages and material handling. The dimensions of the milling machine are 10,500x2,140x2,187 mm and its weight is 2,170 kg.

There are 3 graphs.

AVAILABLE: Library of Congress

Card 2/2

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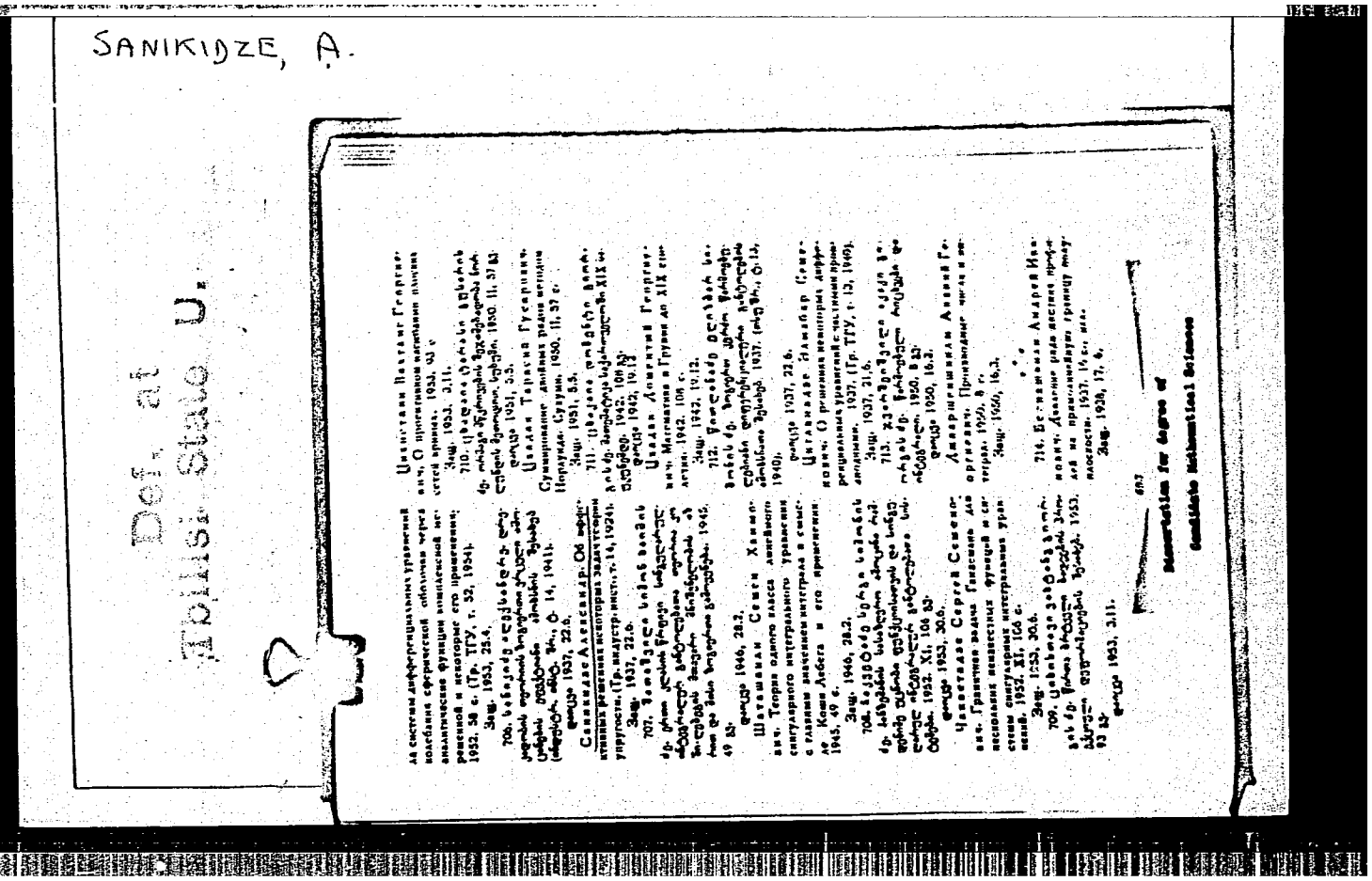
"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIK, V.I., CAnd Med Sci—(diss) "On the peculiarities of influenza in Khar'kov in recent years." Khar'kov, 1958. 16 pp (Khar'kov State Med Inst), (KL,30-58,133)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6



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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

USSR / Cultivated Plants. Subtropical and Tropical Plants. M-8

Abs Jour: Ref Zhur-Biol., 1958, No 16, 73188.

Author : Sanikidze, A. B.
Inst : Georgian Agricultural Institute.
Title : To Bring Out And Raise Frost-Resistant Lemon Varieties.

Orig Pub: Tr. Gruz. s.-kh. in-ta, 1955, 42-43, 89-96.

Abstract: No abstract.

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

AUTHOR: Sanikidze, D. G.

SOV/56-35-1-40/59

TITLE: On the Theory of the Pomeranchuk Effect in He^3 (K teorii effekta Pomeranchuka v He^3)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 35, Nr 1, pp. 279 - 280 (USSR)

ABSTRACT: This paper deduces the left branch of the melting curve from the experimentally obtained part of the curve above the minimum. First the author gives the equation which connects the 2 melting temperatures for the same pressure. The expansion coefficient is negative in the temperature interval where $(\partial S/\partial p)_T > 0$. The density of liquid He^3, must therefore have a maximum, and this maximum was observed experimentally at the temperature $T_o \sim 0,4^oK$. The influence of the volume variation may be neglected. If the expansion coefficients of solid He^3 and of He^4 have the same order of magnitude, the volume variation may be neglected also for the solid phase. The free energy of liquid He^3 may be calculated for the 2 possible forms of the spectrum by using the results

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On the Theory of the Pomeranchuk Effect in He^3 SOV/56-35-1-40/59

attained by Khalatnikov and Abrikosov (Ref 4). The expressions obtained are given explicitly. In the solid phase the orientation of the spins begins at temperatures which are much lower than the corresponding temperatures for the liquid phase, and therefore it is possible to write down the expression $F^{II} = -RT \ln 2$ for the free energy. The thermal part of the free energy may be neglected because of $\sim RT(T/\Theta)^3$. If $T_2(p)$ is known by experiment, it is possible to plot the p - T diagram. The p-T curve has a minimum at $T \sim 0,5^\circ$ K and $p \sim 30$ atmospheres. The author thanks Professor I.M.Lifshits, who suggested this theme and made useful comments. There are 2 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: February 8, 1958

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

5(4)

AUTHORS: Lifshits, I. M., Sanikidze, D. G. SOV/56-35-4-3

TITLE: The Pomeranchuk-Effect and the State Diagram of He^3-He^4-Solutions (Effekt Pomeranchuka i diagramma sostoyaniya rastvorov He^3-He^4)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 4, pp 1o2o - 1o25 (USSR)

ABSTRACT: The equilibrium diagram for the solid and liquid phase of He^3-He^4-solutions has interesting characteristic features which are connected with the Pomeranchuk-effect. Pomeranchuk showed that the He^3-melting curve in the P-T-diagram has a minimum and that lower points have a negative melting heat (Refs 1,2). This effect was observed in the course of experiments by Walters and Fairbank (Uolters,Ferbank) (Ref 3). From the experimental data on the entropy of He^3 it follows for the minimum that: $P_o \approx$ 30 atm, $T_o \approx 0.5^oK$. In the present paper the authors investigate the influence of the Pomeranchuk-effect on the

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equilibrium of the liquid and solid phases in He^3-He^4-solutions. First, the phase equilibrium in weak solutions of He^4 in He^3 is investigated. Formulation of equilibrium conditions is according to Landau and Lifshits (Ref 4); three important cases are investigated: 1) $\Delta P=0$: with $P=P_0$ the equilibrium curves for low concentration have a parabolic shape which is touched by the T-axis (in $T=T_0$)(Fig 1). 2) $\Delta P< 0$: The equilibrium curves in the domain of low concentration are parabolas which touch neither one another nor the T-axis. 3) $\Delta P> 0$: The curves are again parabolas which, however, intersect in T_1 and T_2 and which also intersect the T-axis in these points. This case is discussed more in detail. For all three cases equations are given for x' and x" (He^4-concentrations in the liquid and solid phase respectively). The next chapter deals with the model of the "impurity-containing gas". The energy spectrum of the liquid He^3, which contains He^4-traces, is investigated.

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The Pomeranchuk-Effect and the State Diagram of He^3-He^4- Solutions SOV/56-35-4-33/52

The interaction between He^3-, and He^4-atoms leads to the formation of additional energy levels in the solution. The energy distribution of the impurity-atoms obeys the Boltzmann (Bol'tsman) statistics up to a certain temperature (degeneration of the gas containing impurities). The conditions for which deviations from classical statistics occur were investigated by Pomeranchuk (Ref 5). For spectra of the type $\varepsilon = \varepsilon_0 + p^2/2\mu$ and $\varepsilon = \varepsilon_0 + (p-p_0)^2/2\mu$ formulae are given for the free energy of weak solutions of perfect gases, for the entropy and the degeneration temperature of a Bose (Boze) gas. Also the concentration ratios in the phases are investigated. In the last chapter of this paper the authors discuss highly concentrated solutions . At $T < 0.83^\circ K$ liquid He^3-He^4-mixtures separate into two phases of different He^3-concentration. Figure 4 shows such an equilibrium diagram for $P > P_0$. The variation dT/dP is estimated at:

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

The Pomeranchuk-Effect and the State Diagram of He^3-He^4- Solutions SOV/56-35-4-33/52

$(dT/dP)_{x'=0.07} \sim 10^{-2}$ degrees/atm (Ref 12). There are 4 figures and 12 references, 7 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

SUBMITTED: May 26, 1958

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIKIDZE, D.G., Cand Phys Math Sci -- (diss) "Certain problems of the theory of the solution He^3 - He^4." Khar'kov, 1959, 8 pp (Min of Higher Education UkSSR. Khar'kov Order of Labor Red Banner State Univ im A.M. Gor'kiy) 150 copies. Bibliography at end of text (14 titles) (KL, 36-59, 117)

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10.(4)

AUTHOR: Sanikidze, D. G. SOV/56-37-1-59/64

TITLE: The Hydrodynamics of Solutions of Strange Particles in Helium II Near λ-Point (Gidrodinamika rastvorov postoronnikh chastits v gelii II vblizi λ-tochki)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 1, pp 320 - 321 (USSR)

ABSTRACT: In the present "Letter to the Editor" the author investigates the hydrodynamic equations of the solutions of strange particles in helium II in the immediate vicinity of the λ-transition. The results obtained by an investigation carried out by Ginzburg and Pitayevskiy (Ref 1) serve as a basis; the superfluid part of the liquid is described by a complex function $\psi(x,y,z,t) = \eta e^{i\varphi}$, where $\rho_s = m|\psi|^2$, $\vec{v}_s = (\hbar/m)\nabla\varphi$; (m is the mass of the He^4-atom). The derivation of the equations (1-5) is carried out like in the case of that of Pitayevskiy (Ref 2). These equations are written down also for the case of a small gradient of ρ_s; they agree, as to form, with the ordinary differential system of equations of hydrodynamics of solutions of

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strange particles in He II. The amount of the parameter Λ may be determined by comparing the absorption coefficient of the first sound calculated from these equations (6-11) with the measured absorption coefficient in He^3-He^4-solutions near λ-point. For pure He II Pitayevskiy found $\Lambda \approx 15$. The author finally thanks I. M. Khalatnikov and L. P. Pitayevskiy for suggesting the subject and for discussions. There are 3 Soviet references.

ASSOCIATION: Institut fiziki Akademii nauk Gruzinskoy SSR (Physics Institute of the Academy of Sciences, Gruzinskaya SSR)

SUBMITTED: April 21, 1959

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

D.G. Sanikidze

24(0) SOV/53-67-4-7/7

AUTHOR: Chentsov, E.

TITLE: The Fifth All-Union Conference on the Physics of Low Temperatures (5-ya Vsesoyuznoye soveshchaniye po fizike nizkikh temperatur)

PERIODICAL: Uspekhi fizicheskikh nauk, 1959, Vol 67, Nr 4, pp 743-750 (USSR)

ABSTRACT: This Conference took place from October 27 to November 1 at Tbilisi; it was organized by the Otdeleniye fiziko-matematicheskikh nauk Akademii nauk SSSR (Department of Physico-mathematical Sciences of the Academy of Sciences, USSR), the Akademiya nauk Gruzinskoy SSR (Academy of Sciences, Georgian SSR), and the Tbilisskiy gosudarstvennyy universitet im. Stalina (Tbilisi State University named Stalin). The Conference was attended by about 300 specialists from Tbilisi, Moscow, Khar'kov, Kiyev, Leningrad, Sverdlovsk, and other cities as well as by a number of young Chinese scientists at present working in the USSR. About 50 lectures were delivered which were divided according to research fields. - I. Liquid Helium. Reports were delivered by the researchers of the Laboratoriya fiziki nizkikh temperatur MGU (Laboratory for Low Temperatures of Moscow State University) under the supervision of P. L. Kapitsa, the Tbilisi State University under the supervision of E. L. Andronikashvili, B. N. Esseyeva, Ye. S. Borovik-Romanov and B. G. Mamaladze spoke about the investigation of the dependence of rotational oscillations of a single disk in He II in dependence on the rotation rate. G. A. Gamtsemlidze spoke about the influence exercised by the state of the disk surface on critical rate and on the damping of its oscillations in the transcritical range. V. P. Peshkov (IFP AN SSSR - Institute for Physical Problems AS USSR) spoke about further investigations of the boundary between superfluid and non-superfluid helium (discovered by himself) in a heat flow. This boundary characterizes the density- and temperature jump. Wang, Wei-yen, Ye. M. Zinov'yeva and V. P. Peshkov spoke about investigations at extremely low temperatures (down to 0.5°K) which were attained by the method of the evacuation of He^3-vapors. Wang, Wei-yen investigated in the interval 0.57 - 2.07°K the phenomenon of the temperature jump (discovered by P. L. Kapitsa in 1941) on the boundary of a solid (in this case Cu) by means of He III for the thermal resistance not the T^2-law but a T^n-law holds, where n=2.5±0.1. Zinov'yeva and Peshkov investigated, among other things, also the phase

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diagram of He^3 dissolved in He^4 (20 - 80%). V. L. Ginzburg (FIAN) gave a report on the phenomenological theory of He II in the region of the λ-point in consideration of quantum effects (the theory was developed by himself and by L. P. Pitayevskiy). E. P. Gerlikman (FIAN AN SSSR - Institute for Atomic Energy, AS USSR) delivered a short report on the theory of phase transition in liquid He^3. I. M. Lifshits and E. G. Sanikidze (KhPTI AN USSR - Khar'kov Physico-technical Institute AS USSR) investigated the melting of solid He^3 on the basis of Landau's theory of the Fermi-fluid and found that melting pressure as a function of temperature has a minimum at 0.5°K (Pomeranchuk-effect). The comprehensive discussion was held under the supervision of P. L. Kapitsa.

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AUTHOR: Sanikidze, D.G.

TITLE: Interpolation with divided differences

PERIODICAL: Referativnyy zhurnal Matematika, no. 7, 1961, 40, abstract 7 V 267. ("Soobshch. AN Gruz SSR", 1960, 25, no. 1, 3 - 10)

TEXT: The author obtains formulas (of a very general form) for the calculation of the divided difference with repeating values of the argument. The obtained formulas are used for the construction of interpolation formulas with multiple knots. The author constructs quadrature formulas of a closed type with derivatives of the integrated function and with abscissas lying outside the interval of integration. Some of these formulas are used for the numerical integration of differential equations of second and third order.

[Abstracter's note : Complete translation.]

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIKIDZE, D.G.

Hydrodynamics of He^3 - He^4 solutions near the λ-point. Izv.vys. ucheb.zav.; fiz. no.4:40-47 '61. (MIRA 14:10)

1. Gruzinskiy politekhnicheskiy institut imeni V.I.Lenina.
(Liquid helium) (Hydrodynamics)

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S/058/62/000/008/067/134
A061/A101

AUTHOR: Sanikidze, D. G.

TITLE: Propagation of sound near the λ point in He^3-He^4 solutions

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 7, abstract 8D51 ("Tr. Gruz. politekhn. in-t", 1961, no. 6 (77), 131 - 135; summary in Georgian)

TEXT: The absorption of sound near the λ point in He^3-He^4 solutions is examined using the full system of hydrodynamic equations obtained by the author (RZhFiz, 1960, no. 4, 8449), which takes account of the relaxation of the superfluid component density near the λ point. The coefficients of second viscosity, which determine the anomalously high absorption of the first sound near the λ point, are calculated. If impurities are absent, the expressions obtained coincide with the coefficients of second viscosity of pure He II, calculated earlier by Pitayevskiy (RZhFiz, 1959, no. 8, 17660).

L. Tarasov

[Abstracter's note: Complete translation]

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B102/B104

AUTHOR: Sanikidze, D. G.

TITLE: Some features of the equilibrium diagram for a He^3-He^4 solution at the λ-point

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1330-1332

TEXT: Some singularities arising in the He^3-He^4 equilibrium diagrams are considered in a more general way than in previous papers (e.g. ZhETF 33, 936, 1957; Physica 18, 565, 1952) taking account also of these cases when the second derivatives of the thermodynamic potential have a logarithmic singularity. Previously it has been assumed that the singularity of the thermodynamic potential at the λ-point leads to finite jumps of its second derivatives; experimental data obtained for helium have shown however that the conditions are more complex and the second derivatives of the thermodynamic potential tend to infinity at the λ-point. This means that the line of the λ-transition would meet the line of phase equilibrium not as shown in Fig. 1a but as shown in Fig. 1b. The same is true for the

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Some features of the equilibrium ...

lamination diagram (Fig. 2). Professor I. M. Lifshits is thanked for discussion.

ASSOCIATION: Institut kibernetiki Akademii nauk Gruzinskoy SSR (Institute of Cybernetics of the Academy of Sciences Gruzinskaya SSR)

SUBMITTED: December 19, 1961

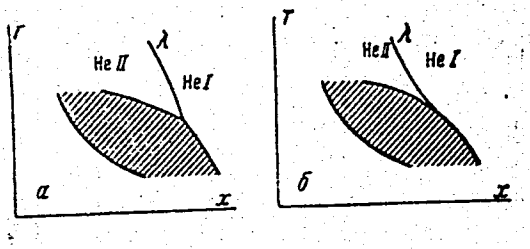

Fig. 1

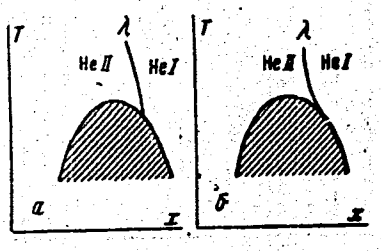

Fig. 2

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ACCESSION NR: AP4025946 S/0056/64/046/003/1123/1125

AUTHORS: Sanikidze, D. G.; Chernikova, D. M.

TITLE: Fourth sound in a He-3 He-4 solution

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 1123-1125

TOPIC TAGS: fourth sound, helium 3, helium 4, helium 3 helium 4 solution, superfluidity, superfluid component, normal component, energy gap

ABSTRACT: The propagation of waves in which only the superfluid part of the liquid vibrates (fourth sound) in helium II alone was considered by Atkins (Phys. Rev. v. 113, 962, 1959), and was recently observed experimentally. The article deals with the possibility of observing fourth sound in a solution of He^3--He^4 under the conditions when the normal component of the liquid is prevented from oscillat-

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ing. The hydrodynamic equations for the propagation of sound in the solution are written out and are transformed into a system of algebraic equations which yield for the velocity of the fourth sound

$$u_4^2 = \frac{\rho_0}{\rho}\left(\frac{\partial p}{\partial \rho}\right)_{\sigma,c}\left[1+\frac{c}{\rho}\left(\frac{\partial \rho}{\partial c}\right)_{p,T}\right]^2 + \frac{\rho_0}{\rho}\left\{\bar{\sigma}^2\left(\frac{\partial T}{\partial \sigma}\right)_{\rho,c} + c^2\left[\frac{\partial}{\partial c}\left(\frac{Z}{\rho}\right)_{p,T}\right]\right\} - 2\frac{\rho_0}{\rho}\alpha\bar{\sigma}\left(\frac{\partial p}{\partial \rho}\right)_{T,c}\left(\frac{\partial T}{\partial \sigma}\right)_{\rho,c}\left[1+\frac{c}{\rho}\left(\frac{\partial \rho}{\partial c}\right)_{p,T}\right],$$

$$\bar{\sigma} = \sigma - c\,(\partial\sigma/\partial c)_{p,T}, \qquad \alpha = -\rho^{-1}(\partial\rho/\partial T)_{p,c}.$$

(the symbols are standard). For low helium concentration this yields

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$$u_4^2 = \frac{\rho_s}{\rho}\frac{\partial p}{\partial \rho}\left[1 + 2\frac{c}{\rho}\frac{\partial \rho}{\partial c} - 2\alpha\frac{\partial T}{\partial \sigma}\left(1 + \frac{c}{\rho}\frac{\partial \rho}{\partial c}\right)\left(\sigma_{00} + \frac{kc}{m_3}\right)\right] +$$

$$+ \frac{\rho_s}{\rho}\left[\frac{\partial T}{\partial \sigma}\left(\sigma_{00} + \frac{kc}{m_3}\right)^2 + \frac{kTc}{m_3}\right] -$$

$$- \frac{\rho_s}{\rho}\left[1 + 2\frac{c}{\rho}\frac{\partial \rho}{\partial c} - 2\alpha\frac{\partial T}{\partial \sigma}\left(1 + \frac{c}{\rho}\frac{\partial \rho}{\partial c}\right)\left(\sigma_{00} + \frac{kc}{m_3}\right)\right]u_1^2 + \frac{\rho_n}{\rho}u_2^2,$$

where σ_{40} -- entropy of pure He^4 and M_3 -- mass of He^3 atom (other symbols are standard). Thus the velocity of fourth sound is expressed in terms of the velocities of first and second sound and, in view of the smallness of the latter, it is essentially proportional to the velocity of first sound. Measurement of the velocity of fourth sound makes it possible to study the behavior of He^3 atoms in HeII and determine the ratio of the superfluid to normal density components in narrow slots, capillaries, and porous substances impregnated with liquid helium. "The authors are grateful to Professor

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I. M. Lifshitz and Professor I. M. Khalatnikov for valuable discussions." Orig. art. has: 10 formulas.

ASSOCIATION: Institut Kibernetiki AN GruzSSR (Institute of Cybernetics AN GruzSSR)

SUBMITTED: 25Sep63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: PH NR REF SOV: 000 OTHER: 003

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ACC NR: AP6005086 SOURCE CODE: UR/0251/65/040/003/0513/0520

AUTHOR: Sanikidze, Dzh. G.

ORG: Tbilissi State University (Tbilisskiy gosudarstvennyy universitet)

TITLE: Approximate calculation of singular integrals

SOURCE: AN GruzSSR. Soobshcheniya, v. 40, no. 3, 1965, 512-520

TOPIC TAGS: singular integral, approximation convergence, Cauchy problem, interpolation

ABSTRACT: The singular integrals considered are of the Cauchy kind:

$$\int_{-1}^{+1} \frac{f(t)}{(t-x)\sqrt{1-t^2}}\,dt \quad (-1<x<1) \tag{1}$$

and

$$\int_{-1}^{+1} \frac{f(t)}{t-x}\,dt \quad (-1<x<1), \tag{2}$$

The residual terms of these formulas are given so that ultimately, on the basis

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of the Lagrange interpolation formula, a formula of the form

$$\frac{1}{\pi}\int_{-1}^{+1}\frac{f(t)}{(t-x)\sqrt{1-t^2}}\,dt=\sum_{\nu=0}^{n}A_\nu(t_\nu,\ x)+R_{n+1}(f), \qquad (3)$$

is derived. Further, the process of convergence of the derived formulas is considered on the basis of Steklov's theorem of the convergence of quadrature formulas (Sh. Ye. Mikeladze. Chislennyye metody matematicheskogo analiza. Moscow, 1953). It is shown that if the function f(x) is continuously differentiable over the interval $[-1, +1]$ and the sum $\sum_{\nu=0}^{n}|A_\nu|$ is bounded, then quadrature process (3) converges uniformly with respect to $x\in(-1, +1)$. For convergence of formulas of the form

$$\int_{-1}^{+1}\frac{f(t)}{t-x}\,dt=f(x)\ln\frac{1-x}{1+x}+\sum_{\nu=1}^{n}B_\nu f(t_\nu,\ x)+R_n(f)$$

the sum $\sum_{\nu=1}^{n}B_\nu f(t_\nu,\ x)$ should converge toward the integral $\int_{-1}^{+1}f(t,\ x)dt$. The con-

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ditions of convergence are the same as for integral (1). Thus it is ultimately possible, on resorting to Feuer's interpolation process, to construct a uniformly converging quadrature process with fixed nodes. Orig. art. has: 10 formulas.

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ACC NR: AP6020226 SOURCE CODE: UR/0056/66/050/006/1682/1684

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B

AUTHOR: Karchava, T. A.; Sanikidze, D. G.

ORG: Institute of Cybernetics, Academy of Sciences, Georgian SSR (Institut kibernetiki Akademii nauk Gruzinskoy SSR)

TITLE: Heat conductivity of thin dielectric and ferrodielectric films and threads

SOURCE: Zh eksper i teor fiz, v. 50, no. 6, 1966, 1682-1684

TOPIC TAGS: heat conductivity, dielectric material, spin wave, phonon scattering, low temperature effect, ferrodielectric material

ABSTRACT: The coefficient of heat conductivity has been calculated for thin dielectric and ferrodielectric films and threads at low temperatures, when the free path of the phonons and spin waves is much longer than usual. It has been shown that for thin films, gliding phonons and spin waves are the main factors in heat conductivity. In the case of thin threads, the gliding phonons and spin waves serve

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ACC NR: AP6020226

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only as corrective elements. Different mechanisms of phonon and spin-wave scattering have been investigated. The authors thank R. N. Gurzhi for suggesting the subject and I. M. Lifshitz for discussions of the results. Orig. art. has: 7 formulas. [Based on authors' abstract] [NT]

SUB CODE: 20, 11/ SUBM DATE: 29Jan66/ ORIG REF: 002/ OTH REF: 003/

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

ACC NR: AP6037085 SOURCE CODE: UR/0056/66/051/005/1550/1556

AUTHOR: Sanikidze, D. G.

ORG: Institute of Cybernetics, Academy of Sciences, Georgian SSR (Institut Kibernetiki Akademii nauk Gruzinskoy SSR)

TITLE: Propagation of fourth sound in helium near the Lambda point

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1550-1556

TOPIC TAGS: liquid helium, hydrodynamic theory, phase transition, sound propagation, superfluidity, sound absorption, absorption coefficient

ABSTRACT: In view of the fact that the usual equations for the hydrodynamics of helium become unsuitable near the λ point, since they do not take into account the relaxation of the density of the superfluid component, the author derives a new set of equations for the hydrodynamics of a superfluid liquid near the λ point under the conditions that the velocity of the normal component of the helium is zero. The superfluid part of the liquid is described by means of a specially defined complex function, with respect to which the internal energy per unit volume of the liquid is minimized. Unlike the usual equations of hydrodynamics, the density of the superfluid component is not assumed given, but serves as an independent variable. The propagation of

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ACC NR: AP6037085

fourth sound in the superfluid liquid is then described by linearizing the hydrodynamics, the density of the superfluid component is not assumed given, but serves as an independent variable. The propagation of fourth sound in the superfluid liquid is then described by linearizing the hydrodynamic equations under the assumption that the gradient of the superfluid-component density is small. It is shown that as the λ point is approached, the fourth-sound absorption coefficient increases rapidly. Expressions are obtained both for the velocity of the fourth sound and for its absorption coefficient, which is connected with the relaxation of the density of the superfluid component. An expression is derived for the velocity of the fourth sound in terms of the velocities of the first and second sounds. Orig. art. has: 35 formulas.

SUB CODE: 20/ SUBM DATE: 08Jun66/ ORIG REF: 004/ OTH REF: 006

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L 45699-66 EWT(d) IJP(c)

ACC NR: AR6017343 SOURCE CODE: UR/0044/66/000/001/B123/B124

AUTHOR: Sanikidze, Dzh. G.

REF SOURCE: Tr. Tbilissk. un-ta, v. 110, 1965, 255-261

TITLE: On computing several improper integrals

SOURCE: Ref. zh. Matematika, Abs. 1B577

TOPIC TAGS: integral equation, polynomial

TRANSLATION: Several formulas for computing the improper integrals

$$\int_{-1}^{+1} |x|^{\alpha} f(x)\,dx \qquad (1)$$

and $\int_{-1}^{+1} x^{\beta} f(x)\,dx$ (2)

are constructed according to values of the function $f(x)$ and its derivatives (in integral (2) x^{β} is an odd function). With the aid of an interpolation formula for (1), the following quadrature formula is introduced:

$$\int_{-1}^{+1} |x|^{\alpha} f(x)\,dx = \sum_{\nu=1}^{m} A_{\nu}(\alpha)\,[f(x_{\nu}) + f(-x_{\nu})] + \sum_{s=0}^{p-1} B_{s}(\alpha)\,f^{(2s)}(0) + R_{m,p}(\alpha), \qquad (3)$$

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ACC NR: AR6017343

where $$A_\nu(\alpha)=\frac{1}{x_\nu^{2p}H_\nu(x_\nu)}\int_0^1 x^{2p+\alpha}H_\nu(x)\,dx,$$

$$B_s(\alpha)=\frac{2}{(2s!)}\left[\frac{1}{2s+\alpha+1}-\sum_{\nu=1}^{m}x_\nu^{2s}A_\nu\right].$$

With the proper choice of nodes, the residual term of formula (3) vanishes providing $f(x)$ is a polynomial of degree $\leq 4m + 2p-1$. Variants of formula (3) are studied for special cases of m and p. By analogy a formula of the following form is constructed for (2):

$$\int_{-1}^{+1}x^\beta f(x)\,dx=\sum_{\nu=1}^{m}A_\nu(\beta)\,[f(x_\nu)-f(-x_\nu)]+\sum_{s=0}^{p-1}B_s(\beta)\,f^{(2s+1)}(0)+R(\beta). \qquad (4)$$

For the case when $m=1$ formulas are obtained from (3) and (4) with equidistant nodes. Bibliography has 4 titles. I. Shelikhova.

SUB CODE: 12/ ~~SUBM DATE: none~~

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447120006-6

SANIKIDZE, G.S.

Effect of fertilizers on the microbiological processes in the soil of laurel plantations. Mikrobiologiia 33 no.1:112-117 Ja-F '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut chaya i subtropicheskikh kul'tur Gruzinskoy SSR, Makharadze.

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